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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/691,939	10/23/2003	Scott J. Clifford	16143	6309

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BUTZEL LONG
STONERIDGE WEST
41000 WOODWARD AVENUE
BLOOMFIELD HILLS, MI 48304

EXAMINER

TADESSE, YEWEBDAR T

ART UNIT	PAPER NUMBER
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1734

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/23/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/691,939

Applicant(s)

CLIFFORD ET AL.

Examiner

Yewebdar T. Tadesse

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 November 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 and 22-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-12, 22-25 and 32-35 is/are allowed.
- 6) ☒ Claim(s) 26-28, 30 and 31 is/are rejected.
- 7) ☒ Claim(s) 29 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Claim Objections

1. Claims 1-12, 22-25 and 32-35 are objected to because of the following informalities: The use of "adapted to" or "adapted for" languages is noticed in the already allowed claim 1, line 2 and claims 22, line 4 and claim 32, line 5. It has been held that the recitation that an element that is "adapted to" perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchison*, 69 USPQ 138. As such, the examiner advice the applicant to replace the phrase "adapted to" or "adapted for" with "configured to" or "configured for" or to delete the word "adapted" from each sentence of the claims. Appropriate correction is required.
2. For claim language consistency and preventing 112 2nd issue, the following corrections are also recommended:

Claim 1, line 2, the phrase "said arm" be replaced with 'said outer arm:'

Claim 22, line 2, the phrase "said arm" be replaced with 'said outer arm:'

Claim 32, line 3, the phrase "said arm" be replaced with 'said outer arm:'

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 26-28 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP-11267560 in view of JP 11-114873, Bihn (4,712,739) and Gengenbach et al (US 2,930,350)

As to claims 26-27, JP'560 discloses (see English translated Abstract, and Figs 2 and 11) a painting apparatus comprising an arm for a painting robot; an outer end (6); a paint canister (97) mounted inside the housing (see paragraph 51 and Fig 11); a wrist (7) having one end (7a) attached to the outer end of the arm; and a wrist (7b) having an opposite end for mounting a paint applicator (8). JP'560 lacks teaching structural components of the wrist as well as the arm having a housing formed of a non-conductive material. However, JP873 discloses (see English translated Abstract and detailed description and Fig 3) structural components (items 50 and insulating washers 31 and 32, see paragraph) of the wrist (wrist flange 20) formed of a non-conductive material. It would have been obvious to one of ordinary skill in the art at the time the

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invention was made to include structural components of the wrist formed of a non-conductive material in JP'560 to electrically insulate the robot with less load. Bihn teaches an electrostatic or a non-electrostatic painting apparatus mounted on an industrial robot (see column 2, lines 31-35). One in the art would include an electrostatic spray device in JP'560 device to enhance atomization of the painting solution. Gengenbach et al discloses (see Figs 1 and 4; column 2, lines 55-63) in an electrostatic spray arrangement a housing (7) of the outer arm (see Fig 4) formed of a non-conductive material. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include an outer arm being formed of a non-conductive material in JP'560 to prevent electric hazards or to properly insulate the electric spray installation.

With respect to claim 28, JP'560 discloses a paint transfer line continuously connecting (see Fig 8) the color changer (11) to an interior of the paint canister for transferring paint from the color changer (11) to the interior of the paint canister (29, 97) and capable of providing electrostatic isolating of the paint canister from the color changer during use of the paint canister for painting.

As to claim 30, in Fig 11, the color changer is mounted outside the arm housing.

6. Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP-11267560A in view of Bihn (4,712,739) and Gengenbach et al (US 2,930,350) and JP 11-114873 as applied to claim 28 above and further in view of Klein et al (US 2001/0013315). JP'560 lacks teaching a pig removably inserted in the paint transfer

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line and being slidably moveable in the paint transfer line. Klein et al discloses (see Fig 1 and paragraphs 32 and 37) a pig (32) removably inserted in the paint transfer line and being slidably moveable in the paint transfer line. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include a pig movable as claimed in JP'560 to introduce only the quantity of paint which is required overall as taught by Klein et al (see paragraph 9).

Allowable Subject Matter

7. Claims 1-12, 22-25 and 32-35 are allowed.

8. Claim 29 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. The following is an examiner's statement of reasons for allowance: as to claims 1-12 and 29 see reasons of allowance described on the action mailed on 08/09/2006. With respect to claims 22-25 and 32-35, in JP'560 the canister (pump 97) is not sized to store paint. As to claims 22-25, prior art of record does not disclose or suggest a painting apparatus comprising, among others an outer arm for a painting robot having a housing formed of a non-conductive material, a color changer outside the housing and a paint canister mounted inside the housing and wherein the canister is sized for storing an amount of paint. With respect to claims 32-35, prior art of record does not disclose

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or suggest a painting apparatus comprising, among others, an outer arm for a painting robot formed of a non-conductive material, a color changer mounted on the painting robot, and a paint canister mounted on the outer arm and wherein the canister is sized for storing an amount of paint.

Response to Arguments

10. Applicants' arguments with respect to claims 26-28 and 30-31 are not persuasive. Applicant argues that the components (insulating washers 31, 32) are not described in the translated Abstract. Accordingly, the computer-translated documents of the detailed descriptions of JP873 are enclosed herewith. As shown in paragraphs (11-13) items 31 and 32 of the wrist flange (20) are insulting washers. Furthermore, applicant argues that these insulating washers are not a structural component of the flange 20 since the structural integrity of the flange would be the same with or without the washer. Examiner respectfully disagrees because without the washers the wrist flange would not have been secured to the outer arm of the robot. These washers (31, 32) are considered to be parts or components of the wrist flange (20). Their insulative characteristic of the washers is also advantageous to electrically insulate the wrist flange from the body section of a robot as taught in JP'873 (see paragraph 6).

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

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accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yewebdar T. Tadesse whose telephone number is (571) 272-1238. The examiner can normally be reached on Monday-Friday 8:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Fiorilla can be reached on (571) 272-1187. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


YTT